UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/809,717 | 03/26/2004 | Hans-Ove Hagelin | 19378.0084 | 8088 |

7590    01/17/2006

Edward A. Pennington
Swidler Berlin Shereff Friedman , LLP
Suite 300
3000 K Street, NW.
Washington, DC  20007-5116

| EXAMINER |
|---|
| DATSKOVSKIY, SERGEY |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2121 | |

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/809,717 | HAGELIN, HANS-OVE |
| | Examiner | Art Unit | |
| | Sergey Datskovskiy | 2121 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>14 November 2005</u>.

2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-13</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-13</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 November 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All  b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

## DETAILED ACTION

### Status of the claims

Claims 1-13 were originally presented. After the First Non-final Office Action, claims 1

and 11 were amended. Claims 1-13 are still pending in the Instant Application.


### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees.  See *In re Goodman*, 11
F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*,
418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be commonly
owned with this application.  See 37 CFR 1.130(b).
Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer.  A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).


1.     Claims 3, 11 and 12 are rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 8, 12 and 9 of

U.S. Patent No. 6,772,055, respectively.  Although the conflicting claims are not

identical, they are not patentably distinct from each other because claims of the

application are broader than the claims of the patent.

In particular, regarding the limitation of "a decision support window which

comprises at least one area which represents one of said states, wherein this area

comprises names which identify different rules which form part of the state, and allowing

the user to make decisions by, via said second means, inputting instructions which

mean that one or more conclusions which form part of a certain rule, the name of which

is currently shown in said area in the decision support window, shall be executed": claim

5 of the patent No. 6,772,055 discloses a rule-block window, claims 6 and 7 disclose

indicators that are shown in said window and indicate whether a conclusion which forms

part of a rule is going to be executed, and claim 8 discloses that a user with the help of

said second means of the user interface may change the indications of said indicators.

See claim chart below which lays out the corresponding claims of the patent and

the application.

2.      Claims 3, 11 and 12 are provisionally rejected under the judicially created

doctrine of obviousness-type double patenting as being unpatentable over claims 6, 2

and 8 of copending Application No. 10/169,382, respectively.  Although the conflicting

claims are not identical, they are not patentably distinct from each other because claims

of the copending application are broader than the claims of the application that's being

examined.

In particular, regarding the limitation of "a decision support window which

comprises at least one area which represents one of said states, wherein this area

comprises names which identify different rules which form part of the state, and allowing

the user to make decisions by, via said second means, inputting instructions which

mean that one or more conclusions which form part of a certain rule, the name of which

is currently shown in said area in the decision support window, shall be executed": claim

2 discloses indicators, claim 3 allows user to change these indicators with the help of

said second means, and claims 6 and 8 disclose having a window that shows a plurality

of rules; the mentioned elements have the same functionality as the currently claimed

"decision support window".

See claim chart below which lays out the corresponding claims of both

applications.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

### Double Patenting Claims Correspondence Chart

|  | App. No. 10/809,717 | U.S. Patent No. 6,772,055 | App. No. 10/169,382 |
|---|---|---|---|
| Claim No. | 3 | 8 | 6 |
|  | 11 | 12 | 2 |
|  | 12 | 9 | 8 |

### Claim Objections

3.      Claim 1 is objected to because of the following informalities:  the phrase "a

machine a user thereof" in line 4 is grammatically incorrect.  It is suggested to change it

to "a machine or a user thereof".  Appropriate correction is required.

## Claim Rejections - 35 USC § 101 and 35 USC § 112

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.      An invention, which is eligible for patenting under 35 U.S.C. § 101, is in the "useful arts" when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The fundamental test for patent eligibility is thus to determine whether the claimed invention produces a "useful, concrete and tangible result." The test for practical application as applied by the examiner involves the determination of the following factors:

a.      "Useful" – The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished. Applying utility case law the examiner will note that:

    i.  the utility need not be expressly recited in the claims, rather it may be inferred.

    ii. If the utility is not asserted in the written description, then it must be well established.

b.      "Tangible" – Applying *In re Warmerdan*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a

mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. § 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed in a tangible medium, which enabled its functionality to be realized.

c.      "Concrete" – Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. An appropriate rejection under 35 U.S.C. § 101 should be accompanied by a lack of enablement rejection, because the invention cannot operate as intended without undue experimentation.

5.      Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility.  Specifically:

6.      In Claims1-13, the ambiguities cited would make it impossible for the process to be repeatable or "concrete."  In other words, different users would come up with different responses.

7.      As per Claims1-13, it appears that the method is attempting to determine the behaviour of a user.  The behaviors of a user are not predictable.  Thus, this method is not repeatable and would appear to be an attempt to patent an abstract idea not a "concrete" process.

8.      Furthermore, the method of claim 1 is not tangible since it is not directed to a practical application producing a real-world result.  In particular, steps of allowing the

user to make decisions, analyzing the decisions and determining the rules do not result

in anything more than a manipulation of abstract ideas.

9.      Claims 1-13 are also rejected under 35 U.S.C. 112, first paragraph. Specifically,

since the claimed invention lacks a patentable utility, for the reasons set forth above,

one skilled in the art clearly would not know how to use the claimed invention.


## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10.     Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated

by Cypher at al. (US Patent No. 5,566,295).

**Claim 1**

Cypher (295) teaches a method of establishing rules for a device used for generating decision support for decisions which determine the behavior of an apparatus, a tangible system, a machine or a user thereof and/or for controlling the behavior of an apparatus, a tangible system, a machine or a user thereof (the device is disclosed as a graphical simulator, which can be a vehicle simulator; see col. 1, lines 29-32), wherein said method comprises the steps of:

a supervising unit arranged to handle a rule system for the behavior (Fig. 1, combination of elements 18,20,22 and 30; col. 6, lines 10-23), wherein the supervising unit comprises at least one storage member in which a rule structure comprising a set of completely or partly ready-formulated rules for the behavior is stored (Fig 1, element 22; col. 6, lines 14-16),

a user interface comprising first means for presenting information to a user of the device (Fig. 1, element 16; col. 6, line 13) and second means for inputting instructions to said supervising unit (Fig. 1, element 14; col. 6, lines 11-12),

wherein the device is arranged such that said rule structure is such that a rule (col. 6, lines 48-50) comprises one or more premises (col. 6, lines 50-53) and one or more conclusions (col. 6, lines 53-58, premises are represented by "before" states which may either occur or not occur during execution, thus being either true or false, and conclusions are represented by "after" states),

wherein the device is arranged such that the rule system is divided into a plurality of states for different parts of said behavior (col. 10, lines 52-53; col. 10, lines 66-67.

Behavior is described by rules, where each rule has a simulation context, which is defined as a simulation state), wherein each state comprises one or more of said rules (col. 6, lines 48-50),

wherein the device is arranged to via said first means present a decision support window which comprises at least one area which represents one of said states, wherein this area comprises names which identify different rules which form part of the state (Fig. 3C; col. 10, lines 31-34),

running said device in a real or simulated version of said apparatus, a tangible system, a machine or a user thereof such that the apparatus, a tangible system, a machine or a user thereof goes through a behavior or a behavior scenario (disclosed as simulation, see Fig. 7, col. 19, lines 22-28),

presenting said decision support window to a user (Fig. 3C; col. 10, lines 31-34),

allowing the user to make decisions by, via said second means, inputting instructions which mean that one or more conclusions which form part of a certain rule, the name of which is currently shown in said area in the decision support window, shall be executed (Fig. 8; col. 19, lines 66-67, col. 20, lines 1-5; inputting instructions is disclosed as programming by demonstration),

analyzing the decisions which have been made by the user (col. 20, lines 6-8), and determining or modifying the rules for which the user has made decisions concerning that one or more conclusions shall be executed out in accordance with the analysis that has been carried out (Figs. 9A and 9B; col. 20, lines 13-67. Disclosed steps of determining if the simulation context has been adjusted, if an object has been

moved, and if a property modification has been done, define the content of a new rule

that has been generated).

**Claim 2**

Cypher (295) teaches a method according to claim 1, wherein the device is arranged such that said premises shall be able to either be true or false and wherein said conclusions are predetermined and pre-programmed (col. 6, lines 53-58, premises are represented by "before" states which may either occur or not occur during execution, thus being either true or false, and conclusions are represented by "after" states), and wherein the device is arranged such that said rule structure is such that each premise in the rule can be assigned an indicator (col. 15, lines 29-41) which can indicate at least two different conditions, namely a first condition which means that the premise shall be true and a second condition which means that the premise shall be false (col. 15, lines 50-56, where combining an expression with Boolean operators allow to specify at least two different conditions in the condition menu), wherein at least one conclusion is intended to be executed if all of said premises fulfill the conditions set by the assigned indicators, and wherein said method is such that said rules which are determined or modified in accordance with the analysis which has been carried out are determined or modified in that the premises for these rules are determined or modified in accordance with the analysis which has been carried out (col. 14, lines 26-30).

**Claim 3**

Cypher (295) teaches a method according to claim 2, wherein said device is arranged such that said rule structure is such that each premise in the rule also can be assigned an indicator (col. 15, lines 29-41) which can indicate a third condition which

means that it does not matter whether the premise is true or false in order for said one or more conclusions to be intended to be executed (col. 15, lines 50-56, where combining an expression with Boolean operators allow to specify at least three different conditions in the condition menu, including the claimed third condition).

## Claim 11

Cypher (295) teaches a method according to claim 2, wherein said device is arranged such that the rule structure is such that each conclusion in a rule (col. 6, lines 53-58) is assigned an indicator (col. 15, lines 29-41) which can indicate two different cases, a first case which indicates that the conclusion shall be executed or a second case which indicates that the conclusion shall not be executed, wherein a conclusion is meant to be executed if all of said premises in the rule fulfill the conditions set by the assigned indicators and the indicator of the conclusion indicates said first case (col. 15, lines 29-41; col. 17, lines 17-24. Conclusion here is a resulting part of a rule, where indicator is described by a condition that has to be met for the rule to be executed).

## Claim 12

Cypher (295) teaches a method according to claim 1, wherein said device is arranged such that the rule system is divided into a plurality of rule blocks (col. 10, lines 25-28), each of which comprises one or more rules (col. 6, lines 48-50), wherein each state comprises one or more rule blocks (col. 10, lines 25-28), wherein the rules within a certain rule block concern a certain aspect of the behaviour within the state in question

(col. 10, lines 52-53; col. 10, lines 66-67. Behavior is described by rules, where each rule has a simulation context, which is defined as a simulation state) and wherein the device is arranged such that said area in the decision support window also comprises the name of one or more rule blocks which form part of the state (Fig. 3C; col. 10, lines 31-34).

**Claim 13**

Cypher (295) teaches a method according to claim 1, wherein said device is arranged such that said name of a rule which is shown in said area in the decision support window is shown within a marked area (Fig. 3C; col. 10, lines 31-34), wherein the device is arranged such that the user inputs said instructions, which mean that one or more conclusions which form part of a certain rule shall be executed, by inputting a command when a marker is at or on said marked area (Fig. 8; col. 19, lines 66-67, col. 20, lines 1-5; inputting instructions is disclosed as programming by demonstration, such programming involves dragging and dropping a selected object, see col. 6, lines 60-67).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.     Claims 4, 6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cypher at al. (US Patent No. 5,566,295) in view of McNulty et al. (US Patent No.

4,868,755).


**Claim 4**

Claim 4 is depended upon claim 2, rejected under 35 U.S.C. §102(b) above.

Cypher (295) fails to teach a method according to claim 2, wherein said device is

arranged such that said rules are only partly ready-formulated such that at least a

plurality of premises, which can be true or false, are defined for a plurality of said rules,

but without these premises yet have been assigned any of said indicators which indicate

some of said conditions, wherein when said device is run, it is registered whether said

plurality of premises are true or false at the occasions when the user makes said

decisions which mean that one or more conclusions which form part of a certain rule

shall be executed.

However, McNulty (755) teaches that the device is arranged such that said rules

are only partly ready-formulated (col. 8, lines 6-9 discloses partly ready-formulated rules

as partial plans) such that at least a plurality of premises, which can be true or false, are

defined for a plurality of said rules, but without these premises yet have been assigned

any of said indicators which indicate some of said conditions (rules are disclosed as

maneuvers, where conclusions are disclosed as goals, and premises are determined

based on disclosed parameters and conditionals. See col. 5, lines 5-10, 23-24; col. 4,

lines 58-65), wherein when said device is run, it is registered whether said plurality of

premises are true or false at the occasions when the user makes said decisions which

mean that one or more conclusions which form part of a certain rule shall be executed (col. 7, lines 18-20 discloses registration of rules based on user decisions).

Cypher (295) and McNulty (755) are analogous art since they both can be used in vehicle simulation (see Cypher (295), col. 1, lines 29-32). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include user interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and combine it with the learning mechanism from McNulty (755) (expert system, col. 41-46). The motivation for doing so would have been to model the behavior of a human pilot and, therefore, greatly reduce the time required for development of training courses (McNulty (755), col. 8, lines 10-16). Therefore, it would have been obvious to modify Cypher (295) in view of McNulty (755) by combining a vehicle simulator with rules and graphics interface with a learning expert system.

**Claim 6**

Claim 6 is depended upon claim 1, rejected under 35 U.S.C. §102(b) above.

Cypher (295) teaches a method according to claim 1, wherein said device is arranged such that said rules (col. 6, lines 48-50) comprise a plurality of premises (col. 6, lines 50-53) which comprise at least one parameter which, when a value for this parameter has been determined, causes the premise to have a truth value such that the premise is true or false (col. 9, lines 32-34. Parameters are disclosed as properties associated with objects that may form "before" or "after" states).

However, Cypher (295) fails to teach that said rules are only partly ready-formulated such that at least a plurality of premises are defined without that a value of said parameter has been determined, wherein when said device is run, the value of said parameters are registered at the occasions when the user makes said decisions which mean that one or more conclusions which form part of a certain rule shall be executed.

McNulty (755) teaches that said rules are only partly ready-formulated such that at least a plurality of premises are defined without that a value of said parameter has been determined (col. 8, lines 6-9 discloses partly ready-formulated rules as partial plans), wherein when said device is run, the value of said parameters are registered at the occasions when the user makes said decisions which mean that one or more conclusions which form part of a certain rule shall be executed (col. 7, lines 18-20 discloses registration of rules based on user decisions).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include user interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and combine it with the learning mechanism from McNulty (755) (expert system, col. 41-46), using the same motivation as for claim 4 above.

**Claim 8**

Claim 8 is depended upon claim 2, rejected under 35 U.S.C. §102(b) above. Cypher (295) fails to teach a method according to claim 2, wherein said device is arranged such that at least a plurality of said rules are ready-formulated in such a manner that at least a plurality of premises are defined for the rules such that the

premises have a truth value such that the premises are true or false and such that these

premises have been assigned said indicators, wherein the device is arranged such that

the user can make decisions which mean that one or more conclusions which form part

of a certain rule shall be executed even if the ready-formulated rule in question does not

say that the conclusion or conclusions shall be executed, wherein when said device is

run, the user makes said decisions which mean that one or more conclusions which

form part of a certain rule shall be executed, wherein registration takes place, at the

occasions when the user makes said decisions, of whether the premises were true or

false.

However, McNulty (755) teaches that said device is arranged such that at least a

plurality of said rules are ready-formulated in such a manner that at least a plurality of

premises are defined for the rules such that the premises have a truth value such that

the premises are true or false and such that these premises have been assigned said

indicators, wherein the device is arranged such that the user can make decisions which

mean that one or more conclusions which form part of a certain rule shall be executed

even if the ready-formulated rule in question does not say that the conclusion or

conclusions shall be executed, wherein when said device is run, the user makes said

decisions which mean that one or more conclusions which form part of a certain rule

shall be executed, wherein registration takes place, at the occasions when the user

makes said decisions, of whether the premises were true or false.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to include user interface and the rules structure from Cypher (295) (col. 6,

lines 48-58; col. 15, lines 29-41, 50-56) and combine it with the learning mechanism from McNulty (755) (expert system, col. 41-46), using the same motivation as for claim 4 above.

## Claim 9

Claim 9 is depended upon claim 8, rejected under 35 U.S.C. §103(a) above. Cypher (295) fails to teach a method according to claim 8, further comprising making a comparison between said registrations at the run and said ready-formulated rules.

However, McNulty (755) teaches a method according to claim 8, further comprising making a comparison between said registrations at the run and said ready-formulated rules (col. 7, lines 47-48).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include user interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and combine it with the learning mechanism from McNulty (755) (expert system, col. 41-46), using the same motivation as for claim 4 above.

## Claim 10

Claim 10 is depended upon claim 9, rejected under 35 U.S.C. §103(a) above. Cypher (295) fails to teach a method according to claim 9, further comprising reformulating said ready-formulated rules on the basis of said comparison.

However, McNulty (755) teaches a method according to claim 9, further comprising reformulating said ready-formulated rules on the basis of said comparison (col. 7, lines 27-31, 61).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include user interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and combine it with the learning mechanism from McNulty (755) (expert system, col. 41-46), using the same motivation as for claim 4 above.


12.     Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cypher at al. (US Patent No. 5,566,295) in view of McNulty et al. (US Patent No. 4,868,755) as applied to claims 4 and 6 above, and further in view of Hosaka et al. (US Patent No. 4,930,084).


**Claim 5**

Claim 5 is depended upon claim 4, rejected under 35 U.S.C. §103(a) above.

Cypher (295) and McNulty (755) teach a method according to claim 4, further comprising, said registration has being done at one or more runs (McNulty (755), col. 7, lines 23-25).

However, Cypher (295) and McNulty (755) fail to teach statistically processing the obtained registrations, thereby establishing ready-formulated rules.

Hosaka (084) teaches statistically processing the obtained registrations (disclosed as using a fuzzy logic with statistical analysis. See col. 4, lines 26-35), thereby establishing ready-formulated rules (Fig. 2, step S16; col. 5, lines 1-7).

Hosaka (084) deals with a vehicle control system, and, therefore, belongs to an analogous art to the combination of Cypher (295) and McNulty (755). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and the learning mechanism from McNulty (755) (expert system, col. 41-46), and combine them with the statistical analysis from Hosaka (084) (col. 4, lines 26-35) using it as a standard decision-making technique in the expert system (McNulty (755), col. 7, lines 51-55). Therefore, it would have been obvious to modify Cypher (295) in view of McNulty (755), and further in view of Hosaka (084) by combining a vehicle simulator with rules and graphics interface with a learning expert system employing a statistical analysis for decision-making.

**Claim 7**

Claim 7 is depended upon claim 6, rejected under 35 U.S.C. §103(a) above. Cypher (295) and McNulty (755) teach a method according to claim 6, further comprising, said registrations have being done at one or more runs (McNulty (755), col. 7, lines 23-25).

However, Cypher (295) and McNulty (755) fail to teach statistically processing the obtained registrations (disclosed as using a fuzzy logic with statistical analysis. See col. 4, lines 26-35), thereby establishing suitable values for the parameters in the rules.

Hosaka (084) teaches statistically processing the obtained registrations, thereby establishing suitable values for the parameters in the rules (Fig. 2, step S16; col. 5, lines 1-7).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include interface and the rules structure from Cypher (295) (col. 6, lines 48-58; col. 15, lines 29-41, 50-56) and the learning mechanism from McNulty (755) (expert system, col. 41-46), and combine them with the statistical analysis from Hosaka (084) (col. 4, lines 26-35) using it as a standard decision-making technique in the expert system (McNulty (755), col. 7, lines 51-55), using the same motivation as for claim 5 above.

### *Response to Arguments*

13.    Applicant's arguments filed on November 11, 2005 have been fully considered but they are not persuasive.

**Regarding the double patenting rejection:**

14.    Applicant argues that U.S. Patent No. 6,772,055 and U.S. App. No. 10/169,382 don't claim a decision support window which comprises at least one area which

represents one of said states, wherein this area comprises names which identify

different rules which form part of the state, and allowing the user to make decisions by,

via said second means, inputting instructions which mean that one or more conclusions

which form part of a certain rule, the name of which is currently shown in said area in

the decision support window, shall be executed.  However, claim 5 of the patent No.

6,772,055 discloses a rule-block window, claims 6 and 7 disclose indicators that are

shown in said window and indicate whether a conclusion which forms part of a rule is

going to be executed, and claim 8 discloses that a user with the help of said second

means of the user interface may change the indications of said indicators.  Similarly,

U.S. App. No. 10/169,382 has claim 2 that discloses indicators, claim 3 allows user to

change these indicators with the help of said second means, and claims 6 and 8

disclose having a window that shows a plurality of rules.  The mentioned elements have

the same functionality as the currently claimed "decision support window".  Therefore,

claims 3, 11 and 12 stay rejected under the judicially created doctrine of obviousness-

type double patenting.


**Regarding the rejection under 35 U.S.C. §102:**

In reference to Applicant's argument:

> "...Cypher discloses a way to write a computer program without typing in program statements, but rather, by simply performing the desired steps and recording those steps to form the program. By contrast, the present invention, according to claim 1, requires running said device in a real or simulated version of said apparatus, tangible system, machine, or user thereof such that the apparatus, tangible system, machine, or user thereof goes through a behavior or a behavior scenario, presenting a decision support window to a user and allowing the user to make decisions by inputting instructions which mean that one or more conclusions which form part of a certain rule, the name of which is currently shown in said area in the decision support window, shall be executed."

Examiner's response:

Cypher discloses the claimed device as a program running on a computer (Fig.

1, combination of elements 18,20,22 and 30; col. 6, lines 10-23). There is no evidence

in claims that would suggest otherwise, such as any structural elements that would

show that the device is anything more then just a program running on a computer.

Specifically, Cypher discloses running a *simulation* program that would simulate a

tangible system, such as, for example, a railroad (col. 1, lines 29-32). Going through a

behavior scenario is disclosed as running through a simulation containing a set of rules.

Similarly, the other cited elements from claim 1 are also disclosed by Cypher as shown

in details in the rejection under 35 U.S.C. §102 above.


In reference to Applicant's argument:

> "Cypher does not disclose or suggest allowing the user to provide input to a behavior that is
> running, in order to determine which conclusions that form part of a rule of the behavior will be
> executed."

Examiner's response:

Even though claim 1 contains the limitations of running the device such that the

apparatus, a tangible system, a machine or a user thereof goes through a behavior or a

behavior scenario, claim 1 does not specify that input from the user is provided *while*

the behavior is running. However, even if that were the case, Cypher discloses

accepting inputs from the user while the simulation is running (disclosed as

programming by demonstration, see Fig. 8; col. 19, lines 66-67, col. 20, lines 1-5. User

is able to modify the simulation context affecting the simulation while it is running. A

typical example of such interactive simulation would be a SimCity simulation described

in col. 1, lines 29-35).

In reference to Applicant's argument:

> "Further, Cypher discloses determining if a simulation context has been adjusted, but this is not what is required by the present invention. For example, claim 1 recites determining or modifying the rules for which the user has made decisions concerning that one or more conclusions shall be executed out in accordance with the analysis that has been carried out. As described above, Cypher does not disclose or suggest allowing the user to provide input to a behavior that is running, in order to determine which conclusions that form part of a rule of the behavior will be executed. Further though, Cypher does not disclose or suggest modifying the rules themselves based on the user provided input that determined which conclusions would be executed."

Examiner's response:

Cypher discloses determining or modifying the rules for which the user has made

decisions and carrying an analysis as recording actions demonstrated by user,

*analyzing* these actions, and creating corresponding generalized computer program

steps (i.e. rules). (see col. 20, lines 1-8). The rules (disclosed as GRRs) are

determined based on user's inputs as shown by algorithm from col. 20, lines 13-67.

In view of the presented arguments claims 1-3 and 11-13 stay rejected under 35

U.S.C. §102 as being anticipated by Cypher.

**Regarding the rejection under 35 U.S.C. §103:**

In response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The claimed limitations not covered by McNulty and Hosaka are disclosed by Cypher as has been shown in the 35 U.S.C. §102 rejection and so, are present in the combination. Therefore, the rejections made under 35 U.S.C. §103 are valid, and claims 4-10 stay rejected.


## *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sergey Datskovskiy whose telephone number is (571) 272-8188. The examiner can normally be reached on Monday-Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.D.                                                             Anthony Knight

Assistant examiner                                  Supervisory Patent Examiner

A.U. 2121                                                Technology Center 2100